LOREX
VIEW YOUR WORLD™

21.5" TOUCH SCREEN MONITOR

Instruction Manual

English Version 1.0

VANTAGE

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Thank you for purchasing the Lorex L22LT11B Touch Screen Monitor.

This manual refers to the following products:

- L22LT11B Touch Screen Monitor

Please visit us on the web for the most current Manuals, Quick Start Guides and Firmware. Additional Language Manuals may also be available at:

www.lorextechnology.com

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products ' enclosure that may be of sufficient magnitude to constitute a risk of electric shock

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.

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THIS PRODUCT MAY REQUIRE PROFESSIONAL INSTALLATION

LOREX IS COMMITTED TO FULFILLING YOUR SECURITY NEEDS

- We have developed user friendly products and documentation. Please read the Quick Start Guide and User Manual before you install this product.

- Consumer Guides and Video Tutorials are available on our web site at **www.lorextechnology.com/support**

- If you require further installation assistance, please visit **www.lorextechnology.com/installation** or contact a professional installer.

- Please refer to the "Need Help" insert for technical support and customer care information.

- Please note that once the components of this product have been unsealed, you cannot return this product directly to the store without the original packaging.

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AVANT DE COMMENCER

CE PRODUIT POURRAIT EXIGER UNE INSTALLATION PROFESSIONNELLE

LOREX S'ENGAGE À SATISFAIRE VOS BESOINS SÉCURITAIRES

- Veuillez lire le guide de démarrage rapide et le mode d'emploi avant d'installer ce produit

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- Veuillez référer à l'insert "Need Help" pour ob¬tenir de l'information sur le service à la clientèle et le support technique

- Veuillez constater qu'une fois que les com¬posantes de ce produit ont été retirées de l'emballage, vous ne pourrez plus retourner ce produit directement au magasi

ANTES DE EMPEZAR

ESTE PRODUCTO PUEDE EXIGIR UNA INSTALACIÓN PROFESIONAL

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- Si necesita ayuda para la instalación, visite www.lorextechnology.com/installation o contacte un especialista en instalaciones

- Favor de referir al documento "Need Help" para obtener información acerca del servicio al cliente y al soporte técnico

- Favor de notar que una vez que los componentes de este producto han sido removidos del embalaje, no podrá devolver este producto directamente a la tienda

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3 Easy Ways to Contact Us:

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Product Support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at
www.lorextechnology.com/support
To order accessories, visit
www.lorextechnology.com

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Customer Care (for warranty and accessory sales)
customerservice@lorexcorp.com
Customer Feedback
info@lorexcorp.com

By Phone:

North America:
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Tech Support: **1-877-755-6739** (1-877-75-LOREX)
Mexico: **1-800-514-6739**
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www.lorextechnology.com

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support@lorexcorp.com

O

servicio al cliente (respecto a la garantía y a la venta de accesorios)
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Comentarios de cliente
info@lorexcorp.com

Por Teléfono:

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Mexico: **1-800-514-6739**
Internacional: **+800-425-6739-0**
(Ejemplo: Desde el Reino Unido, marque el 00 en lugar del +)

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Veuillez veiller à enregistrer votre produit à www.lorex-cctv.com/registration pour recevoir des mises à jour et l'information de produit

3 FAÇONS FACILES DE NOUS CONTACTER:

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www.lorextechnology.com/support
Pour commander des accessoires, visitez
www.lorextechnology.com

Par Courriel:

support technique (pour les questions techniques et 'installation) **support@lorexcorp.com**

OU

service à la clientèle (pour les questions de garantie et les ventes d'accessoires)
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info@lorexcorp.com

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Support technique: **1-877-755-6739** (1-877-75-LOREX)
Mexico: **1-800-514-6739**
International: **+800-425-6739-0**
(Exemple: À partir du Royaume-Uni, composez 00 au lieu de +)

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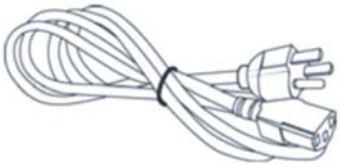
System components and accessories

LCD display

Power cord

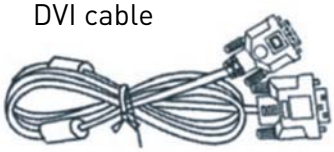


Audio cable

Signal cable (VGA)

USB cable

DVI cable



Quick Start Guide

Note: Please keep the original carton and packing materials for future transportation or shipment of the display.

Connection instructions

Packaging procedures

If you need to package the display again, please keep the original carton and packing materials. The procedures for re-packaging the display are as follows:

1. Unplug the power cord from the display (make sure all attached peripherals are already turned off).
2. Put the display into the carton in the original packaging manner.

Important

Before you start, place a clean towel or cloth on a flat surface, where you can place the removed display panel without being damaged.

Adjusting the viewing angle

You may adjust the display's viewing angle from -5° ~ 20°.

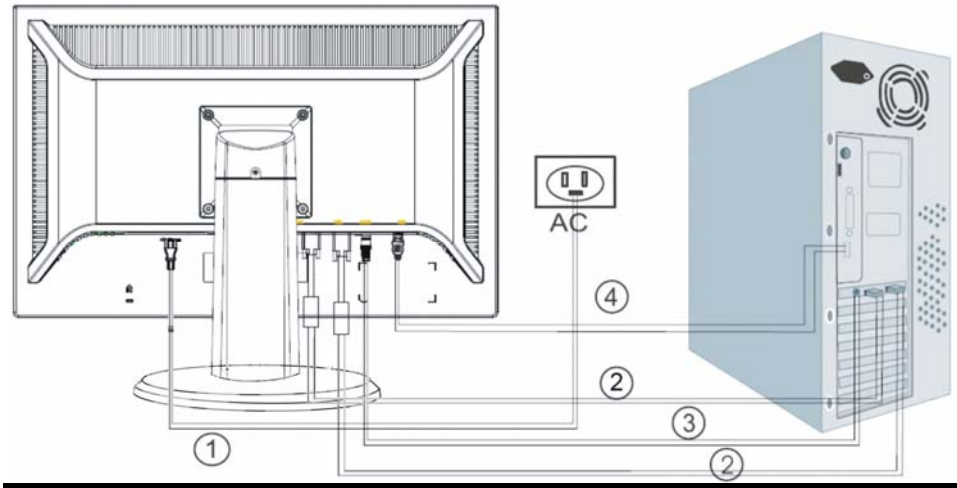
(Figure 2)

Note:

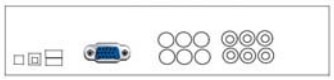
- When you adjust the viewing angle of the display, avoid touching the LCD display with your fingers, as this may damage or break the liquid crystal screen.
- When you adjust the angle of your display, pay attention to your adjustment action, as shown in the figure above.

Connection instructions

⚠ **CAUTION:** Before installation, please make sure to power off the display and the computer or DVR (Digital Video Recorder).



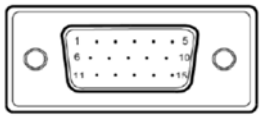
Back of PC or DVR



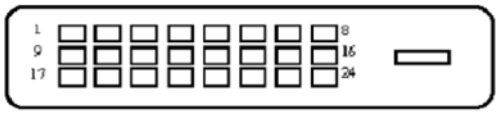
1	Power cord	Connect one end of the power cord into the AC power connector on the rear of the display, and the other end to an electrical wall outlet.
2	VGA cable or DVI Cable	Connect the signal cable: - For analog operation use the VGA cable. Connect the VGA signal cable to the VGA connector on the rear of the PC or DVR. - For digital operation use the DVI-D cable. Connect the DVI-D signal cable to the DVI connector on the rear of the monitor and the other end to the DVI connector on the rear of the PC or DVR. This is recommended for optimal performance.
3	Audio cable	Connector one end of the audio cable to the audio-in connector on the rear of the display, and the other end of the cable to the audio-out jack on the PC (PC only)
4	USB cable	Connect one end of the USB cable to the USB connector on the display, and the other end of the USB cable to the PC or DVR. **This is required for touch screen operation on your PC or DVR.**

Warning:

1. Please verify the videocard you are using and use an appropriate signal cable.
2. Pay attention to the PIN assignments and connection directions. Do not force to avoid bending the pins.



VGA (D-sub 15 pin)

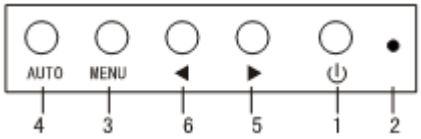


DVI

Using the display

Turning on the display

Turn on the display before turning on the computer. When the power is on, the LED on the power button lights blue and the screen image will appear after about 10 seconds. If the LED doesn't light blue or no image appears, please verify if the display is properly connected.



(Figure 4)

Function controls

1	POWER	Power Switch	Power ON/OFF Blue LED - Power ON mode Orange LED - Power saving mode
2	LED	Power Indicator	When the monitor is under normal working condition,the indicator will light green (or blue);if the monitor is under power saving mode ,the indicator will glow red (or orange)or off, And the indicator will turn off under the power off mode.
3	MENU	OSD function menu	OSD off: Displays the OSD function menu OSD on: Confirm the OSD function option
4	AUTO	Auto adjustment button	OSD off: Perform the auto adjustment function OSD on: Exit the OSD function menu
5	→	Right/increase button	OSD on: Press this button to select/increase the adjustment
6	←	Left/decrease button	OSD off: Press this button directly to serve as the shortcut for input OSD on: Press this button to select/decrease the adjustment

Control of the Touch Function

Note:

1. Before using the touch function, make sure you connect the USB cable from the monitor into the USB port on the computer or DVR. The touch applications from the CD-ROM must be installed if you are running Windows XP and VISTA.
2. When the touch function is active, make sure there are no obstructions on the screen.

(Figure 5) Ensure there are no foreign objects that may come in contact with the display.
The touch function may replace the mouse after you start the Windows operating system and introduce appropriate finger gesture judgement.

This monitor is optimized to work with LOREX Edge+ DVR series for Touch Screen navigation capabilities.

There is no need to install drivers as the DVR will auto detect the monitor. A USB cable must be connected between the DVR and the monitor for the touch screen feature to work. If you plan to use the monitor's touch screen capabilities with a PC, install the drivers located on the CD.

Finger gesture and related Windows software applications are listed below:

Finger Operation	Windows 7	Windows Vista	Windows XP Tablet	Windows XP
Drag	Y	Y	Y	Y
Click	Y	Y	Y	Y
Double-click	Y	Y	Y	Y
Single-touch digitizer	Y	Y	Y	N
Multi-touch gestures	Y	N	N	N

Use your finger for touch applications.

Note:

- Keep the display away from any heat sources such as electric radiators, natural gas pipes or direct sunlight.
  Also keep the display away from excessive dust, mechanical vibration or shock.
- Retain the original carton & packaging materials. They will be convenient for you, if you need to transport your display again.
- For the best protection, pack the display in the original manner of package from the factory.
- To maintain a brand new appearance of the display, clean with soft cloth regularly. Please remove stubborn stains with a soft cleaner rather than strong cleaners such as diluting agent, benzene or corrosive cleaner as they may damage the display. For the sake of safety, remove the power plug prior to cleaning.
- The touch function may need about 7 seconds to resume if the USB cable is re-plugged or the computer resumes from sleep mode (suspend mode).

OSD selection

Press the Menu button on the monitor to activate the OSD function, continue pressing the Menu button to select an option from the 7 functions in the menu. Select the function you want to adjust on the OSD function menu and then press MENU to make the adjustment. Please use the ←or→ button to adjust the screen to your desired status. After finishing the setting, press AUTO to exit the OSD screen.

OSD Menu

Press the MENU to call out the OSD menu (main menu), please see the illustration as below:
Use ►or◄ to select the desired items, and then press the MENU button to confirm the selection.
Use the ►/◄ button to adjust the display items to optimum, press again for confirmation and exit adjustment.

Brightness adjust menu

Brightness: Use ►**or**◄ to adjust the brightness.
Contrast: Use ►**or**◄ to adjust the contrast.
Return: Back to previous menu.

Image adjustment menu

Auto-adjust: Adjusts the screen to the optimal resolution.
H-position adjustment: Use ►**or**◄ to adjust the horizontal position of the screen image..
V-position adjustment: Use ►**or**◄ to adjust the vertical position of the screen image..
Image position level/clock set: Use ►**or**◄ to adjust the image position level.
Phase adjustment: Use ►**or**◄ to adjust the focus and definition of the display.
Return: back to previous menu.

Color adjustment menu

Red/Green/Blue color adjustment: Use ►or◄ to adjust the value of red, green and blue to change the image color to meet your needs.

Color temperature: Use ►or◄ to select desired color temperature (9300k, 6500k, USER)

Color adjustment: it can be adjusted if under shadow mode. If you are not satisfied with the color termperature set by manufacturer, you may set the color temperature to USER mode; it will light red at this time. When entering the adjust menu, please use ►or◄ to adjust R, G, B to change the color of image.

Return: back to previous menu.

Audio adjustment menu

Volume: use ►or◄ to adjust the volume to optimum (option)

Mute: Use ►or◄ to select Mute/Sound.

Return: Back to previous menu.

System setting menu

Language: Use ►or◄ to select desired language.
Menu display time: use ►or◄ to select the desired time for menu display.
Saving time: use ►or◄ to select desired time for display.
Reset: reset all the value to factory settings.
Return: back to previous menu.
4:3: When set to ON, the screen resolution will be set to 4:3 screen resolution.
When set to OFF, the screen resolution will be in a normal display mode.
DCR (Optional): Select ON/OFF to enable or disable contrast ration.

Exit and signal resource selection menu

Select terminal input: select input terminal for signal input (option)
Exit: exit OSD menu

Note: Hot Key of volume, brightness, contrast
Without OSD mode, you may press ◄ button to call volume adjustment directly. When the volume menu does not exit, please press MENU to call brightness and contrast adjustment. You may use ►/◄ to adjust it to optimum.

Troubleshooting

Problems	Possible solutions
Power LED doesn't light up.	• Check if the power switch is in the ON position • Make sure the power cord is properly connected
No screen image	• Check if the power switch is in the ON position • Make sure the power cord is properly connected • Make sure the signal cable is securely connected • When the display is in use, it will automatically turn off to enter the power saving mode. Please press any key to see if the image resumes.
Abnormal colors are present	• Please refer to the "Color Temperature" section to adjust the RGB color or select a color temperature.
The image bounces or a wave pattern is present	• Remove any electrical device that may be causing electrical interference. • Check the signal cable and make sure the pins are not bent.
The screen image is not centered or the size is incorrect	• Press the Auto button to automatically optimize the display status. • Refer to the "Image Control section".

Note: Never disassemble or repair the product yourself. If your problem cannot be solved according to the troubleshooting guidelines, please contact your local dealer.

Production Specifications

LCD panel size	21.5in (54.61 cm)
DCR	10000:1 (typical)
Viewing angle	Horizontal 170°, vertical 160° (typical)
Response time	5 ms (typical)
Brightness	265 cd/m^2 (typical)
Input signal	Analog signal (D-sub); digital signal (DVI)
Display color	16.7 M colors
Frequency	24 ~ 83 kHz Horizontal, 50 ~ 76 Hz Vertical
Optimum graphic resolution	1920 x 1080(60Hz)
Max Pixel clock	180 MHZ
Tilt	-5° ~ 20°
Audio output	1W X 2
Power supply	AC: 100-240V ~ 50-60Hz;
Power consumption	Display mode: Max 48W; LED color: Blue Sleeping mode: Less than 1W, LED color: Orange
Size	Width: 507 mm, Height: 402 mm, Depth: 200 mm
Weight	5Kg
Environmental conditions	Operating temperature/humidity: 5 ~ 35°C, relative humidity: 10-85% Storage temperature/humidity: 5 ~ 35°C, relative humidity: 10-85%

Touch Screen Specifications

Principle	Infrared Optical Structure
Sensor refresh rate	120 frames/sec
Resolution	32767 × 32767
Accuracy	< ± 2.5 mm 95% coverage All test with 5 mm diameter stylus Comply to Win7 logo requirement
Glass thickness	1.9 +0.1/ -0.2 mm
Glass treatment	Chemical Tempered, Clear Glass
Module weight	726g ± 5%
Module size	495.2 x 291.8mm (±0.3mm)
Stylus size	Finger or Stylus diameter ≧ 5 mm
LCD	21.5"
Calibration	In-Factory Calibration, User calibration free
Interface	USB HID multi-touch digitizer
OS	Microsoft Windows 7 (multi-touch) Microsoft Windows Vista/ XP (single-touch)
Certification	WINDOWS TOUCH digitizer WHQL test
Power	< 1.0W (operation mode); < 60 mW (suspend mode)
USB Power Requirements	Digital Power 5V (±5%)
Interface	USB
Control Board size	TSM215A: 61 x 25 x 4.6mm TSM215: 120 x 40 x 12.2mm

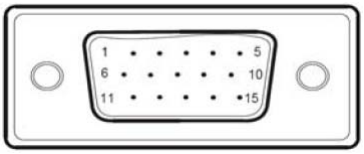
Preset Modes

Preset	Pixel	Horz Freq (kHz)	Horz Polarity	Vert Freq (Hz)	Vert Polarity	Pixel Clk (MHz)	Source
1	640 x 480	31.469	-	59.940	-	25.175	VGA
2	720 x 400	31.469	-	70.087	+	28.322	VGA
3	800 x 600	37.879	+	60.317	+	40.000	VESA
4	1024 x 768	48.363	-	60.004	-	65.000	VESA
5	1280 x 720	45.00	+	60.00	+	74.25	VESA/CEA-861D
6	1280 x 960	60.00	±	60.00	±	108.000	VESA
7	1280 x 1024	63.98	+	60.02	+	108.000	VESA
8	1440 x 900	55.94	-	59.89	+	106.500	CVT 1.30MA
9	1600 x 1200	75.00	+	60.00	+	162.000	VESA
10	1680 x 1050	65.29	-	60.0	+	146.25	CVT 1.76MA
11	1920 x 1080	67.5	+	60.00	+	148.5	VESA/CEA-861D

Appendix

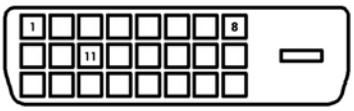
Connector pin assignment

- **15 pin** color display signal cable:



PIN No.	Description	PIN No.	Description
1.	Red	9.	+5V
2.	Green	10.	Logic ground
3.	Blue	11.	Monitor ground
4.	Monitor ground	12.	DDC-serial data
5.	DDC-return	13.	H-sync
6.	R-ground	14.	V-sync
7.	G-ground	15.	DDC-serial time sequence
8.	B-ground		

24 pin DVD-D display signal cable:



Pin No.	Description	Pin No.	Description
1	TMDS Data 2 -	13	TMDS Data 3 +
2	TMDS Data 2 +	14	+3.3/+5V Power (from PC)
3	TMDS Data 2 / 4 Shield	15	Ground (Return for +5V)
4	TMDS Data 4 -	16	Hot Plug Detect
5	TMDS Data 4 +	17	TMDS Data 0 -
6	DDC Clock	18	TMDS Data 0 +
7	DDC Data	19	TMDS Data 0 / 5 Shield
8	No Connect	20	TMDS Data 5 -
9	TMDS Data 1 -	21	TMDS Data 5 +
10	TMDS Data 1 +	22	TMDS Clock Shield
11	TMDS Data 1 / 3 Shield	23	TMDS Clock +
12	TMDS Data 3 -	24	TMDS Clock -

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Parking Lot

LBC6050

Office

LNZ4001

Restaurant

LDC6050

Drive Way

CVC6950B

Home

LW2702

PROTECT EVERYTHING THAT MATTERS

Add wired or wireless cameras to expand the "Envelope of Protection" for your business, your home and your family

Home Office

LW2902

Convenience Store

LW2110

Front Door

LW2301

Nursery

LW2003

Backyard

LW2201